

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 34

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HANS SPIES and HORST DAXER

Appeal No. 96-3158
Application 08/065,857¹

HEARD: June 8, 1999

Before ABRAMS, FRANKFORT and PATE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 13. Subsequent to the Notice of Appeal (Paper No. 17), an amendment (Paper No. 21, filed

¹ Application for patent filed May 21, 1993. According to appellants, the application is a continuation-in-part of Application 07/747,126, filed August 19, 1991, now abandoned.

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April 17, 1995) was entered by the examiner. This amendment canceled claims 2, 3, 5, 6, 7, and 10, and amended claims 1 and 13. It is apparent from the record that claims 11 and 12 now stand objected to and have been indicated by the examiner to be allowable if rewritten in independent form. Independent claim 13 has not been rejected by the examiner in the answer and appears to now be allowed. Only the examiner's prior art rejections of claims 1, 4, 5, 8 and 9 remain for our consideration on appeal.

Appellants' invention is directed to a vehicle passenger restraint system. Independent claims 1 and 9 are representative of the subject matter on appeal and a copy of those claims appears in the Appendix to appellants' brief.

The prior art references relied upon by the examiner in rejecting the appealed claims are:

Spies et al. (Spies '730)	4,117,730	Oct. 3, 1978
Bell et al. (Bell)	4,167,276	Sep. 11, 1979
Cornellier	4,597,251	Jul. 1, 1986
Husby et al. (Husby)	3,742,383	Jun. 22, 1989

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(German Offenlegungsschrift)²

Claims 1, 4 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Husby in view of Bell and Spies '730.

Claim 9 stands rejected under 35 U.S.C. § 103 as being unpatentable over Husby in view of Bell.

Claims 1, 4 and 8 stand additionally rejected under 35 U.S.C. § 103 as being unpatentable over Husby in view of Bell, Spies '730 and Cornellier.

Claim 9 stands additionally rejected under 35 U.S.C. § 103 as being unpatentable over Husby in view of Bell and Cornellier.

Reference is made to the examiner's answer (Paper No. 26, mailed October 27, 1995) and supplemental examiner's answer (Paper No. 30, mailed March 26, 1996) for the examiner's

² Our understanding of this foreign language document is based upon a translation prepared by the U.S. Patent and Trademark Office. A copy of that translation accompanies this decision.

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reasoning in support of the above-noted rejections and to the appeal brief (Paper No. 25, filed August 3, 1995) and reply brief (Paper No. 29, filed January 10, 1996) for appellants' arguments thereagainst.

OPINION

Our evaluation of the obviousness issues raised in this appeal has included a careful assessment of appellants' specification and claims, the applied prior art references, and the respective positions advanced by appellants and the examiner. As a consequence of our review, we have come to the conclusion, for the reasons which follow, that the examiner's rejections of the appealed claims under 35 U.S.C. § 103 are not well founded and, therefore, will not be sustained.

Independent claim 1 on appeal defines a vehicle passenger restraint system that includes a gas generator having "a normally closed first housing" (e.g., 7 in Figure 1), which first housing contains a solid fuel (10) as a charge to generate gas. The system also includes electronic ignition

means (3) for initiating ignition of the solid fuel charge, evaluating means and triggering means (on chip 2) for activating the electronic ignition means, and "a closed second housing [1] defining a vessel which is separate from said first housing," with the closed second housing having incorporated therein the electronic ignition means, the evaluating means and the triggering means. Claim 1 also sets forth that the closed second housing includes "a portion [5] which makes contact with said first housing, positioning said ignition means adjacent to said charge in said first housing." Independent claim 9 defines appellants' passenger restraint system in somewhat different terms as comprising an electrical trigger and a sensor device incorporated into "a single housing [1] to form a closed integral unit," with said closed integral unit including "an extending cylindrical portion" (5). The system of claim 9 also includes a gas generator housing (7) defining "a closed unit," which closed unit is said to be separate from said closed integral unit and is recited as including a recess (8) therein. Claim 9 goes on to set forth that said closed integral unit is

"functionally connected to said gas generator with said extending cylindrical portion extending

into said recess, whereby forces generated upon ignition allow ignition gases to rupture part of said single housing at said cylindrical portion and rupture part of said gas generator housing at said recess to activate said propellant."

Each of the examiner's rejections before us on appeal is premised on his determination that the gas generator (10) of Husby includes, or can be understood as including (based on the "closed" housing 110 of Cornellier), a normally closed first housing (30, 32) which contains a solid fuel as a charge to generate gas, and a closed second housing (27, 28) defining a vessel which is separate from the first housing, has a sensor and ignition means (20) therein, and includes an extending cylindrical portion (near 50). See, particularly, Figures 1 and 2 of Husby.

Like appellants, we find the examiner's position to be untenable, because Husby does not include, and can not be reasonably understood as including, the separate first and second closed housings of appellants' claim 1, or the separate closed unit and closed integral unit as set forth in claim 9 on appeal.

The examiner's assertion that the recitation of a "closed housing" or "closed unit" in appellants' claims on appeal does not preclude housings/units comprising openings (answer, page 6), in our opinion, is in error. When the separate "closed housing" and separate "closed unit" terminology in appellants' claims is understood and interpreted in light of the underlying disclosure of the application, it is clear that such claim recitations require housings or units that are separate and distinct from one another (as seen, for example, in Figures 1 and 1a of appellants' drawings) and which are each "tightly closed" (specification, page 4) so as to ensure against any form of leaks in the gas generator and preclude any contact between the igniter/primer material in the "closed second housing" and the solid fuel charge of the "closed first housing," while also facilitating appellants' stated objective of permitting parts with critical fillings (e.g., closed housing 1) to be separated from other parts (e.g., closed housing 7) for conditioning, recycling or safe disposal wherein said closed housings or units will not be a burden on the environment and allow said environment to be protected for the future (see, e.g., appellants' specification, pages 3-4).

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As for the examiner's citation of Cornellier for its claimed "closed blade guard housing" (col. 4) and forwardly open vertical slots in the forward wall thereof, not only do we consider Cornellier to be nonanalogous art with regard to the vehicle passenger restraint system of appellants invention, but we also view the claim recitations of Cornellier as being entirely irrelevant to a proper interpretation of the separate "closed housing" or separate "closed unit" recitations in appellants' claims on appeal.

Thus, even if one of ordinary skill in the art would have been motivated to have combined the teachings of Husby and Bell, Husby, Bell and Spies '730, or either of those combinations further in view of Cornellier, we agree with appellants that the resulting passenger restraint system would not render obvious that which is set forth in the claims before us on appeal. For that reason, we refuse to sustain the examiner's rejections of claims 1, 4 and 8 under 35 U.S.C. § 103 as being unpatentable over either Husby, Bell and Spies '730, or Husby, Bell, Spies '730 and Cornellier. For the same

reason we likewise refuse to sustain the examiner's rejections of claim 9 under 35 U.S.C.

§ 103 as being unpatentable over either Husby and Bell, or Husby, Bell and Cornellier.

An additional reason for refusing to sustain the examiner's rejections of claim 9 on appeal under 35 U.S.C. § 103 is the utter lack of any relationship suggested in the applied prior art references between a first closed integral unit and a gas generator housing defining a separate closed unit as specifically set forth in lines 8-11 of appellants' claim 9. More specifically, we agree with appellants (reply brief, page 5) that the applied references fail to teach or suggest a relationship wherein forces generated upon ignition allow ignition gases to rupture part of the single housing defining the closed integral unit "at said cylindrical portion" of said closed integral unit and to rupture part of said gas generator housing "at said recess" to activate the propellant in the gas generator housing. The examiner's position as set forth in the last paragraph on page 4 of the examiner's answer, that forces generated upon ignition in

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Husby "are capable of rupturing part of the single housing [27, 28] at the cylindrical portion [near 50] and rupturing part of the gas generator housing at the recess to activate the propellant," is based on total speculation, and, given the combined thickness of the housing portions (27, 30) near reference character (50) in Figure 2 of Husby, would appear to be highly unlikely, if not impossible, especially since reference character (50) in Husby designates an opening in the housing (27, 28).

As should be apparent from the foregoing, we have refused to sustain any of the rejections before us on appeal. Thus the decision of the examiner rejecting claims 1, 4, 8 and 9 of the present application is reversed.

REVERSED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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CHARLES E. FRANKFORT)	APPEALS AND

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Administrative Patent Judge)	
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WILLIAM F. PATE, III)	
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